

## **MDP Migration FAQ**

**Q: *Is it necessary to conform to the CME recommended configuration?***

**A:** Although it is not required, it is ***strongly recommended*** that customers implement the dual-feed approach for arbitration between the two feeds. This approach means that the customer will pull Data Feed A over their primary circuit and Data Feed B over their backup circuit (or vice versa). This will help to prevent a number of network issues such as packet loss, missed messages, lack of redundancy and latencies.

**Q: *Can static joins be used for connection to CME multicast groups?***

**A:** No, CME does not allow static joins within our network environment.

**Q: *Where may I obtain the appropriate channel definitions, IP's and ports for the MDP?***

**A:** This information can be found in the CME Developer's Guide. Refer to Appendix G for production and Appendix H for certification.

**Q: *Why do missing packets or gaps in sequence numbers occur?***

**A:** This can be a result of an improper network configuration. Multicast, by nature, is unreliable, which is why we recommend that customers "arbitrate" between two feeds, simultaneously. Missing packets can also be attributed to insufficient bandwidth.

**Q: *Why does there seem to be more instances of missed messages using the MDP than occurred with the previous platform?***

**A:** For the MDN, when there were periods of peak messages, or when the application on the customer's side could not keep up with data receipt, the messages had a buffer that queued messages (up to 10,000 messages). This caused inherent latencies. In the MDP world, there is no buffer or queuing function, so the messages are simply dropped at a point where too much data is being sent over your circuit.

**Q: *Do you have any suggestions on how to eliminate packet loss?***

**A:** If you have properly implemented CME's recommended configuration, there might only be *some limited* packet loss. Utilizing dedicated servers for specific sets of data over the MDP would definitely help to reduce occurrences of packet loss, especially during peaks. *An example of this would be to have one server for futures channels on MDP and another server for options channels on MDP.*

**Q: *Does CME provide batching functionality?***

**A:** Although the batching function exists, it is turned off. We have confirmed that enabling the batching function does not alleviate all packet loss. Enabling batching would result in a tradeoff where the customer would receive a smaller number of packets at the expense of latent data. This would be beneficial during peak periods but problematic, in terms of latencies, in slower periods of market data.

**Q: *Why do "out of sequence" messages occur with a Client Internet Link (CIL) connection?***

**A:** Because the internet can be unreliable at times, messages may be received out of sequence. To prevent this situation, additional logic must be built into your application for message resequencing purposes, should they arrive out of sequence.

**Q: *For failover capability purposes, is there a difference between the old platform and the MDP, specific to the CIL?***

**A:** Yes. MDP-CIL users will not have proper failover ability with only one connection. CME does not allow the configuration of a single CIL connection for looking at two feeds. As such, we recommend using an additional CIL or one of our other connectivity options.

**NOTE:** To prevent confusion between the terms "missed messages" and "packet loss," please note that the term "missed message" refers to only one message; "packet loss" refers to several messages.